

Recovery Plan Action Status

Plan Name: Ozark Big-Eared Bat Revised Recovery Plan

Plan Status: Final Revision 1

Plan Date: 28-Mar-95

Lead Agency: USFWS

Lead Office: Oklahoma Ecological Services Field Office

(918)

581-7458)

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Ozark big-eared bat (<i>Corynorhinus townsendii ingens</i>)	1	1.1	Obtain long-term authority to manage and protect colony sites	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Ecological Services Division, U.S. Fish and Wildlife Service, U.S. Fish and Wildlife Service, Law Enforcement Division, Missouri Department of Conservation, U.S. Fish and Wildlife Service, Refuge Division, National Speleological Society , Edwards Underground Water District , Guadalupe Blanco River Authority , Arkansas Game and Fish Commission , Arkansas Nature Conservancy , Arkansas Natural Heritage Commission , Realty , Oklahoma Nature Conservancy , Oklahoma Department of Wildlife Conservation	Acquisition	Labor type not yet selected	Use existing program funding plus \$300,000 to acquire AD-14&AD-125 An additional \$384,000 is estimated to be needed over the next 10 years to acquire new essential caves expected to be found. \$5,000/yr. for cooperatives agreements by Refugees with Landowners.

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Ozark big-eared bat (<i>Corynorhinus</i> (=Plecotus) <i>townsendii ingens</i>)	1	1.2	Enhance Management of the Okla Bat Caves National Wildlife Refuge	Ongoing Current	FY 1995 - FY 1999		U.S. Fish and Wildlife Service, U.S. Fish and Wildlife Service, Refuge Division	Management	Internal Administrative	With full-time manager. After the initial 4 years annual funding should be \$85,000. The name of the Oklahoma Bat Caves NWR was changed to the Ozark Plateau NWR. A Refuge Operations Specialist was hired in FY 2009.
Ozark big-eared bat (<i>Corynorhinus</i> (=Plecotus) <i>townsendii ingens</i>)	1	1.3	Expand approved acquisition area for Oklahoma Bat Caves National Wildlife Refuge	Complete	FY 1995 - FY 1999	FY 1995 - FY 1999	U.S. Fish and Wildlife Service, U.S. Fish and Wildlife Service, Law Enforcement Division, Missouri Department of Conservation, U.S. Fish and Wildlife Service, Refuge Division, Arkansas Game and Fish Commission , Arkansas Nature Conservancy , Arkansas Natural Heritage Commission , Realty , Oklahoma Nature Conservancy , Oklahoma Department of Wildlife Conservation	Acquisition: Other	Internal Administrative	The Service approved expansion of the Ozark Plateau NWR in 2005. The refuge was approved to expand up to 15,000 acres within Adair, Delaware, Ottawa, Sequoyah, Craig, Mayes, and Cherokee counties, Oklahoma.

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Ozark big-eared bat (<i>Corynorhinus townsendii ingens</i>)	2	1.4	Add new approved areas for land acquisition in eastern OK, western AR, and southern MO	Not Started	FY 1995 - FY 1999		U.S. Fish and Wildlife Service, U.S. Fish and Wildlife Service, Refuge Division, Realty	Acquisition	Internal Administrative	The Service approved expansion of the Ozark Plateau NWR in 2005. The refuge was approved to expand up to 15,000 acres within Adair, Delaware, Ottawa, Sequoyah, Craig, Mayes, and Cherokee counties, Oklahoma. The approved acquisition area did not, however, include Arkansas or Missouri as recommended by this action. Funding needs will depend on the number and size of new important areas found to need protection as a result of 3.1, 3.2, and 3.3.

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Ozark big-eared bat (<i>Corynorhinus townsendii ingens</i>)	1	1.5	Manage Ozark big-eared bat caves by other agencies and groups	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Ecological Services Division, National Park Service, U.S. Fish and Wildlife Service, Missouri Department of Conservation, U.S. Fish and Wildlife Service, Refuge Division, National Speleological Society , Arkansas Game and Fish Commission , Arkansas Nature Conservancy , Arkansas Natural Heritage Commission , Arkansas Department of Parks and Tourism , Forest Service , Oklahoma Nature Conservancy , Oklahoma Department of Wildlife Conservation	Management: General	Contract	Costs for managing areas by other groups or agencies depends on the number and size of the areas.

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Ozark big-eared bat (<i>Corynorhinus townsendii ingens</i>)	1	1.6	Construct, manage, and monitor cave gates, fences, and other cave protective devices where needed	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Ecological Services Division, U.S. Fish and Wildlife Service, Missouri Department of Conservation, U.S. Fish and Wildlife Service, Refuge Division, National Speleological Society , Arkansas Game and Fish Commission , Arkansas Nature Conservancy , Arkansas Natural Heritage Commission , Arkansas Department of Parks and Tourism , Forest Service , Oklahoma Nature Conservancy , Oklahoma Department of Wildlife Conservation	Management	Contract	To construct at newly found sites, and replace, repair, and maintain existing structures on private land will require annual funding of \$9,000 from a source such as Partners for Wildlife.
Ozark big-eared bat (<i>Corynorhinus townsendii ingens</i>)	2	1.7	Place warning/interpretive signs at cave entrances	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Ecological Services Division, U.S. Fish and Wildlife Service, Missouri Department of Conservation, National Speleological Society , Arkansas Game and Fish Commission , Arkansas Nature Conservancy , Arkansas Natural Heritage Commission , Arkansas Department of Parks and Tourism , Oklahoma Nature Conservancy , Oklahoma Department of Wildlife Conservation	Management	Internal Field Assistance	Annual funding of \$1000 will be required for new sites and repair and replacement of existing signs.

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Ozark big-eared bat (<i>Corynorhinus</i> (=Plecotus) <i>townsendii ingens</i>)	2	1.8	Use law enforcement agencies to protect OBEB caves	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, U.S. Fish and Wildlife Service, Law Enforcement Division, Missouri Department of Conservation, U.S. Fish and Wildlife Service, Refuge Division, Arkansas Game and Fish Commission , Oklahoma Department of Wildlife Conservation	Other: Law Enforcement	Internal Administrative	Use existing program funding. Some additional funding may be necessary
Ozark big-eared bat (<i>Corynorhinus</i> (=Plecotus) <i>townsendii ingens</i>)	3	10.0	Provide long-term protection after delisting	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, U.S. Fish and Wildlife Service, Missouri Department of Conservation, U.S. Fish and Wildlife Service, Refuge Division, National Speleological Society , Arkansas Game and Fish Commission , Arkansas Nature Conservancy , Arkansas Natural Heritage Commission , Oklahoma Nature Conservancy , Oklahoma Department of Wildlife Conservation	Management: General	Contract	This will require contined funding for the Refuge after detisting of \$85,000/vr.

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Ozark big-eared bat (<i>Corynorhinus</i> (=Plecotus) <i>townsendii</i> ingens)	1	2.1	Use minimal disturbing census techniques to annually monitor population status at maternity colonies	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Ecological Services Division, U.S. Fish and Wildlife Service, Missouri Department of Conservation, U.S. Fish and Wildlife Service, Refuge Division, Arkansas Game and Fish Commission , Arkansas Natural Heritage Commission , University of Arkansas , Oklahoma Department of Wildlife Conservation , Oklahoma State University	Research	Contract	2A, 2.2, 3.1, 3.2, and 3.3 are now being contracted by the OPNWR and OESFO. Approximately \$8,000 will be required annually to continue these tasks and monitoring and the search should continue for the next 10 years.
Ozark big-eared bat (<i>Corynorhinus</i> (=Plecotus) <i>townsendii</i> ingens)	1	2.2	Annually census all known hibernacula	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Missouri Department of Conservation, Arkansas Game and Fish Commission , Arkansas Natural Heritage Commission , University of Arkansas , Oklahoma Department of Wildlife Conservation , Oklahoma State University	Research	Labor type not yet selected	
Ozark big-eared bat (<i>Corynorhinus</i> (=Plecotus) <i>townsendii</i> ingens)	3	2.3	Conduct a population viability analysis	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, U.S. Fish and Wildlife Service, U.S. Fish and Wildlife Service, Refuge Division, University of Arkansas , Cooperative Fish and Wildlife Research Unit , Oklahoma State University	Research: General	Contract	

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Ozark big-eared bat (<i>Corynorhinus</i> (=Plecotus) <i>townsendii ingens</i>)	1	3.1	Search for undocumented maternity colonies	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Ecological Services Division, U.S. Fish and Wildlife Service, Missouri Department of Conservation, U.S. Fish and Wildlife Service, Refuge Division, Arkansas Game and Fish Commission , Arkansas Natural Heritage Commission , University of Arkansas , Oklahoma Department of Wildlife Conservation , Oklahoma State University	Management: General	Contract	
Ozark big-eared bat (<i>Corynorhinus</i> (=Plecotus) <i>townsendii ingens</i>)	1	3.2	Search for undocumented hibernacula	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Ecological Services Division, U.S. Fish and Wildlife Service, Missouri Department of Conservation, U.S. Fish and Wildlife Service, Refuge Division, Arkansas Game and Fish Commission , Arkansas Natural Heritage Commission , University of Arkansas , Oklahoma Department of Wildlife Conservation , Oklahoma State University	Other: Information and Education	Contract	

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Ozark big-eared bat (<i>Corynorhinus</i> (=Plecotus) <i>townsendii ingens</i>)	3	3.3	Search for caves and other structures providing limited-use OBEB habitat	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Ecological Services Division, U.S. Fish and Wildlife Service, Missouri Department of Conservation, U.S. Fish and Wildlife Service, Refuge Division, Arkansas Game and Fish Commission , Arkansas Natural Heritage Commission , University of Arkansas , Oklahoma Department of Wildlife Conservation , Oklahoma State University	Other	Contract	
Ozark big-eared bat (<i>Corynorhinus</i> (=Plecotus) <i>townsendii ingens</i>)	1	4.1	Prevent adverse modification to cave habitat, including entrances	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Missouri Department of Conservation, National Speleological Society , Arkansas Game and Fish Commission , Arkansas Nature Conservancy , Arkansas Natural Heritage Commission , Oklahoma Nature Conservancy , Oklahoma Department of Wildlife Conservation	Acquisition	Contract	Some funding to ES for Sec. 7 review and to LE for enforcement. Private land protection can come from a program such as Partners for Wildlife.

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Ozark big-eared bat (<i>Corynorhinus townsendii ingens</i>)	1	4.2	Identify and Protect essential surface foraging habitat and movement corridors used by maternity and hibernating colonies	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Missouri Department of Conservation, National Speleological Society , Arkansas Game and Fish Commission , Arkansas Nature Conservancy , Arkansas Natural Heritage Commission , Oklahoma Nature Conservancy , Oklahoma Department of Wildlife Conservation	Acquisition	Internal Administrative	Same as 4.1
Ozark big-eared bat (<i>Corynorhinus townsendii ingens</i>)	3	4.3	Make essential roost sites and surface habitat locations available only to agencies able to assist in protection	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Ecological Services Division, U.S. Fish and Wildlife Service, Missouri Department of Conservation, U.S. Fish and Wildlife Service, Refuge Division, Arkansas Game and Fish Commission , Arkansas Natural Heritage Commission , Oklahoma Department of Wildlife Conservation	Management	Internal Administrative	Use existing program funding
Ozark big-eared bat (<i>Corynorhinus townsendii ingens</i>)	3	4.4	Map essential OBEB caves	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Ecological Services Division, U.S. Fish and Wildlife Service, U.S. Fish and Wildlife Service, Refuge Division, National Speleological Society , Tulsa Regional Oklahoma Grotto , Central Oklahoma Grotto	Research	Contract	Local NSS grottos in OK, AR, and MO can assist with this.

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Ozark big-eared bat (<i>Corynorhinus</i> (=Plecotus) <i>townsendii ingens</i>)	3	5.0	Evaluate contaminant effects on OBEB	Ongoing Not Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Ecological Services Division, U.S. Fish and Wildlife Service, U.S. Fish and Wildlife Service, Refuge Division, Environmental Contaminants	Research: Environmental Contaminants	Internal Field Assistance	Includes three studies. One on organochlorines, one on aliphatic hydrocarbons, and one on trace elements.
Ozark big-eared bat (<i>Corynorhinus</i> (=Plecotus) <i>townsendii ingens</i>)	1	6.1	Develop and maintain land owner support	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Ecological Services Division, U.S. Fish and Wildlife Service, Missouri Department of Conservation, U.S. Fish and Wildlife Service, Refuge Division, National Speleological Society , Arkansas Game and Fish Commission , Arkansas Nature Conservancy , Arkansas Natural Heritage Commission , Oklahoma Nature Conservancy , Oklahoma Department of Wildlife Conservation	Management	Contract	Possibly from a program such as Partners for Wildlife.

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Ozark big-eared bat (<i>Corynorhinus</i> (=Plecotus) <i>townsendii</i> ingens)	2	6.2	Develop and maintain caver support	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Ecological Services Division, U.S. Fish and Wildlife Service, Missouri Department of Conservation, U.S. Fish and Wildlife Service, Refuge Division, National Speleological Society , Arkansas Game and Fish Commission , Arkansas Nature Conservancy , Arkansas Natural Heritage Commission , Oklahoma Nature Conservancy , Oklahoma Department of Wildlife Conservation	Other: Information and Education	Internal Technical Assistance	Use existing program funding
Ozark big-eared bat (<i>Corynorhinus</i> (=Plecotus) <i>townsendii</i> ingens)	3	6.3	Develop and maintain public support	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Ecological Services Division, U.S. Fish and Wildlife Service, Missouri Department of Conservation, U.S. Fish and Wildlife Service, Refuge Division, National Speleological Society , Arkansas Game and Fish Commission , Arkansas Nature Conservancy , Arkansas Natural Heritage Commission , Arkansas Department of Parks and Tourism , Oklahoma Nature Conservancy , Oklahoma Department of Wildlife Conservation	Other: Information and Education	Internal Administrative	Use existing program funding

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Ozark big-eared bat (<i>Corynorhinus</i> (=Plecotus) <i>townsendii</i> ingens)	3	7.0	Possible future research	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Ecological Services Division, U.S. Fish and Wildlife Service, U.S. Fish and Wildlife Service, Refuge Division, University of Arkansas , Cooperative Fish and Wildlife Research Unit , Oklahoma State University	Research	Contract	
Ozark big-eared bat (<i>Corynorhinus</i> (=Plecotus) <i>townsendii</i> ingens)	3	8.0	Protect all known limited-use sites	Ongoing Current	FY 1995 - FY 1999		U.S. Fish and Wildlife Service, Ecological Services Division, U.S. Fish and Wildlife Service, Missouri Department of Conservation, U.S. Fish and Wildlife Service, Refuge Division, National Speleological Society , Arkansas Game and Fish Commission , Arkansas Nature Conservancy , Arkansas Natural Heritage Commission , Oklahoma Nature Conservancy , Oklahoma Department of Wildlife Conservation	Acquisition: General	Contract	Cost will depend on the number and size of areas requiring protection

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Ozark big-eared bat (<i>Corynorhinus townsendii ingens</i>)	3	9.0	Re-establish stable or increasing populations at available historic caves	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, U.S. Fish and Wildlife Service, Missouri Department of Conservation, U.S. Fish and Wildlife Service, Refuge Division, National Speleological Society , Arkansas Game and Fish Commission , Arkansas Nature Conservancy , Arkansas Natural Heritage Commission , Oklahoma Nature Conservancy , Oklahoma Department of Wildlife Conservation	Acquisition: General	Contract	<p>Conservation measures have been implemented at two historic caves in Delaware County, Oklahoma. A cave gate was constructed at Cave DL-4, an historic hibernacula from which OBEs have not been observed since the 1960s. A fence was constructed around Cave DL-21, a limited-use site from which OBEs have not been recorded since 1987. Although OBEs have not been found at these sites during recent monitoring efforts, the caves will continue to be monitored for natural reestablishment.</p> <p>The cost of managing historic caves will be similar to managing existing essential caves and will vary depending on the number of caves.</p>